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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,589	05/17/2004	Jian-Chin Liang	11612-US-PA	3588

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JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER	
MA, TIZE	

ART UNIT	PAPER NUMBER
2628	

NOTIFICATION DATE	DELIVERY MODE
04/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW

Office Action Summary	Application No.	Applicant(s)	
	10/709,589	LIANG, JIAN-CHIN	
	Examiner	Art Unit	
	TIZE MA	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

The brackets ("[", "]") at the beginning and the end of the title should be removed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US Pub. 2006/0208983 A1), and in view of Matsueda (US Pub. 2002/0149556 A1).

4. Regarding claim 1, Lee et al teaches a color correcting circuit coupled to a video source and a display panel (see Fig. 1 and paragraph [0029] for the color correction circuit, and display panel. And in paragraph [0004], it is stated that the display device is used for computers and televisions. That implies that the input image data includes video source, e.g., for televisions), comprising:

a video look-up circuit, coupled to the video source, wherein an N bit video data from the video source is modulated into an N+M bit video data according to a color look-up table (see element 42 in Fig. 3 and paragraph [0034]. N bit data is converted to m bit

data, where m>n, using look-up tables. Here m is the same as N+M in the instant claim);

an N+M bit data driving circuit, coupled to the video lookup circuit for receiving and outputting the N+M bit video data (see element 43, the Color Correction Matrix in Fig. 3 and paragraph [0046]).

Lee et al also teaches the gamma voltage generating circuit (see elements 20, 30, and 50 in Fig. 1). However, these elements are for n bit data as the data is converted back to n bits after the process 44 in Fig. 1.

5. That is , Lee et al does not teach

an N+M bit data gamma voltage generating circuit, coupled to the N+M bit data driving circuit for receiving the N+M bit video data and providing the voltages in every step according to the values found in a gamma color correction table, wherein, M is a natural number.

6. Matsueda, in the same field of endeavor, teaches a N+M bit data gamma voltage generating circuit, coupled to the N+M bit data driving circuit for receiving the N+M bit video data and providing the voltages in every step according to the values found in a gamma color correction table, wherein, M is a natural number (see Figs. 1 and 5, an paragraph [0052]. 2^{n+m} voltages can be outputted). This method would make the every data value being represented by a unique voltage level.

7. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the circuit as shown in Lee et al by using a N+M bit data gamma voltage generating circuit as shown in Matsueda so that the bit number for the

gamma voltage generating circuit matches the bit number of the data received by the circuit for the benefit that the every data value is represented by a unique voltage level.

8. Regarding claim 2, the combination of Lee et al and Matsueda remains as applied to claim 1 above. The combination would teaches that the N+M bit data gamma voltage generating circuit comprises a gamma correction circuit (again see paragraph [0052] in Matsueda for gamma correction and the N+M bit data gamma voltage generating circuit).

9. Regarding claims 3-5, Lee et al teaches that the N+M bit video data comprises N+M bit video data for the colors red, green, and blue (see Fig. 3 for m bit RGB data, where m > n, and m is the same as N+M in the instant claims).

10. Regarding claim 6, Lee et al teaches that the display panel displays the corrected N+M bit video data (the display panel is used for televisions, see paragraph [0004]).

11. Regarding claim 7, Lee et al teaches a method of correcting the colors of a display, comprising the steps of:

providing an N bit video data (see Fig. 1 for the color (RGB) image data input. Also in paragraph [0004], it is stated that the display device is used for computers and televisions. That implies that the input image data includes video data, e.g., for televisions);

modulating the N bit video data into an N+M bit video data according to a color look-up table (see element 42 in Fig. 3 and paragraph [0034]. N bit data is converted to m bit data, where m>n, using look-up tables. Here m is the same as N+M in the instant claim).

Lee et al also teaches providing the voltages of every step for the video data according to the values found from a gamma color correction table (see elements 30 and 50 in Fig. 1). However, these elements are for n bit data as the data is converted back to n bits after the process 44 in Fig. 1.

12. That is , Lee et al does not teach

providing the voltages of every step for the N+M bit video data according to the values found from a gamma color correction table, wherein, M is a natural number. Matsueda, in the same field of endeavor, teaches providing the voltages of every step for the N+M bit video data according to the values found from a gamma color correction table, wherein, M is a natural number (see Figs. 1 and 5, an paragraph [0052]. 2^{n+m} voltages can be outputted). This method would make the every data value being represented by a unique voltage level.

13. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method as shown in Lee et al by providing the voltages of every step for the N+M bit video data as shown in Matsueda for the benefit that the every data value is represented by a unique voltage level.

14. Regarding claims 8-10, Lee et al teaches that the N+M bit video data comprises N+M bit video data for the colors red, green, and blue (see Fig. 3 for m bit RGB data, where m > n, and m is the same as N+M in the instant claims).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kitahara (JP 2002-218242 A), cited for a image processing device wherein 8-bit pixel data is converted to 12-bit pixel data, and gamma correction is performed on the 12-bit data.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIZE MA whose telephone number is (571)270-3709. The examiner can normally be reached on Mon-Fri 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao M. Wu can be reached on 571-272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tm

/XIAO M. WU/
Supervisory Patent Examiner, Art Unit 2628